Jio AirFiber Home Gateway

Software User Manual

Version 1.1

30th August, 2023

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Software User Manual for Jio AirFiber Home Gateway

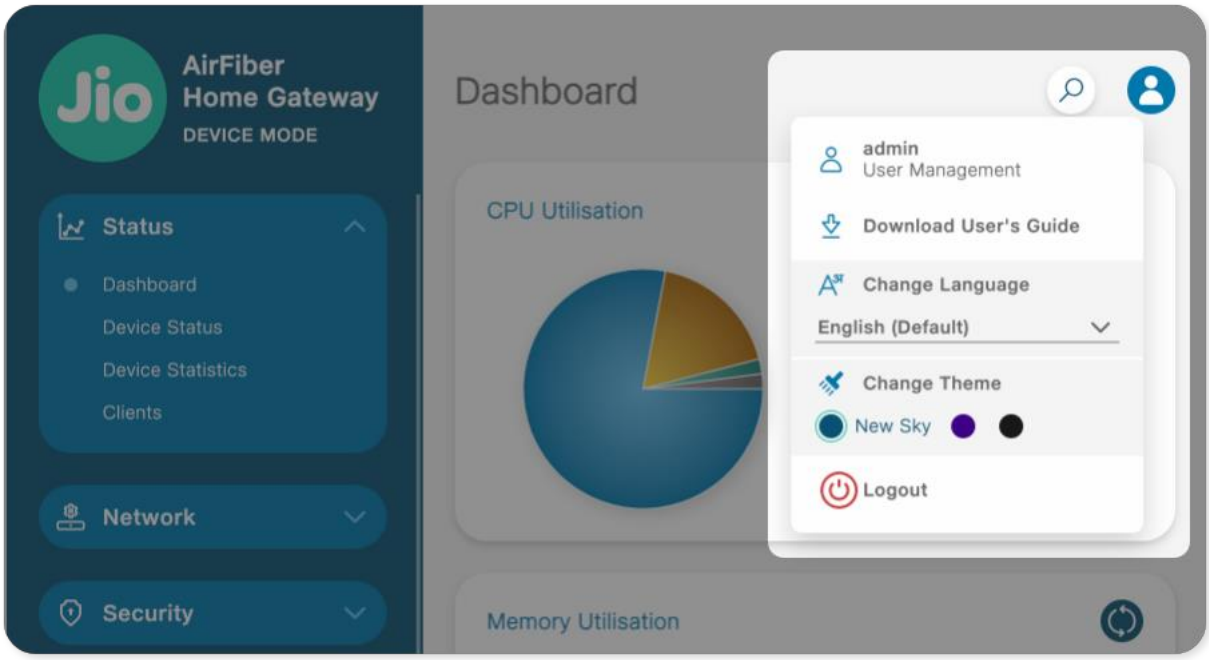
This Software User Manual is a high-level document for the end-user to understand how to use the "Jio AirFiber Home Gateway" devices. User Manual has total three chapters: 1. Introduction, 2. About the UI, and 3. About the Features. The UI (User Interface) & UX (User eXperience) available in three themes 1. New Sky, 2. Royal Lavender, and 3. Slate Gray.

Please see below screens for reference.

New Sky | Royal Lavender | Slate Gray

Also, the UI supports the Multilingual (Multi Language) English and हिंदी (Hindi). The user can click on user icon and change the language as preferred.

Please see below screen for reference.



✍ "User Manual" is available only in default theme of the "New Sky" and "English" language.

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1. INTRODUCTION

Jio AirFiber Home Gateway devices offers a secure, high performance networking solution to address the growing needs of the home users. Based on Wireless N / AC / AX, it achieves wireless Gigabit-speed Internet. It is compatible with 5G and is ideal for web browsing, seamless video streaming, email, and file sharing in the home. It also comes with an Ethernet switch to connect multiple wired devices such as home PCs, the STB and other UE devices like media-players and game consoles.

Jio AirFiber Home Gateway supports the latest wireless security features to prevent unauthorized access, be it from the wireless network or from the Internet. Support for WPA, WPA2, and WPA3 standards ensure the best possible encryption usage while the dual active firewalls (SPI and NAT) prevent potential attacks from across the Internet. Strong parental controls are included, that allow blocking or allowing specific web sites at certain times of the day.

Jio AirFiber Home Gateway also includes a Quality of Service (QoS) option. When enabled, the device improves with online experience, by ensuring that interactive traffic such as gaming, audio and video is prioritized over less time-sensitive traffic such as email or file transfers.

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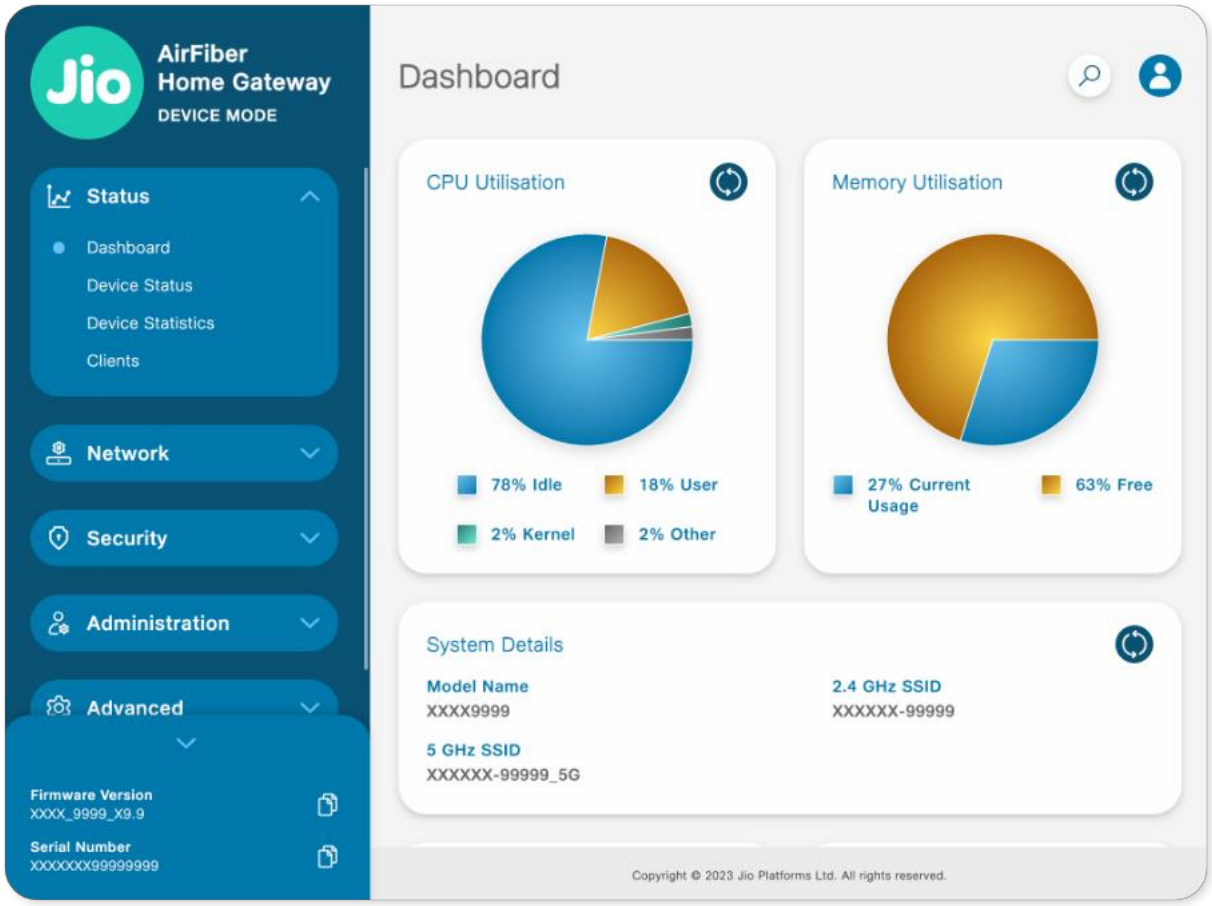
2. ABOUT THE UI

The User Interface (UI) mainly splits into two panels, "Left Panel" and "Right Panel". Menus appear on the left panel and the correspond selected menu sections will appear on the right panel.

Please see below screen for reference.



The right panel is set of sections, section represents device features [Ex: "LAN Configuration", "Wireless Configuration", "Firewall Rules" etc.,]. "About Sections" are explained in upcoming chapters. The entire user interface has "UI & UX Icons" representations, along with actions / links, these are also explained in upcoming chapters.

> ✍ The left panel will hide automatically on tablet & mobile views, users can open left panel (menus) by clicking the hamburger menu on the top-left.

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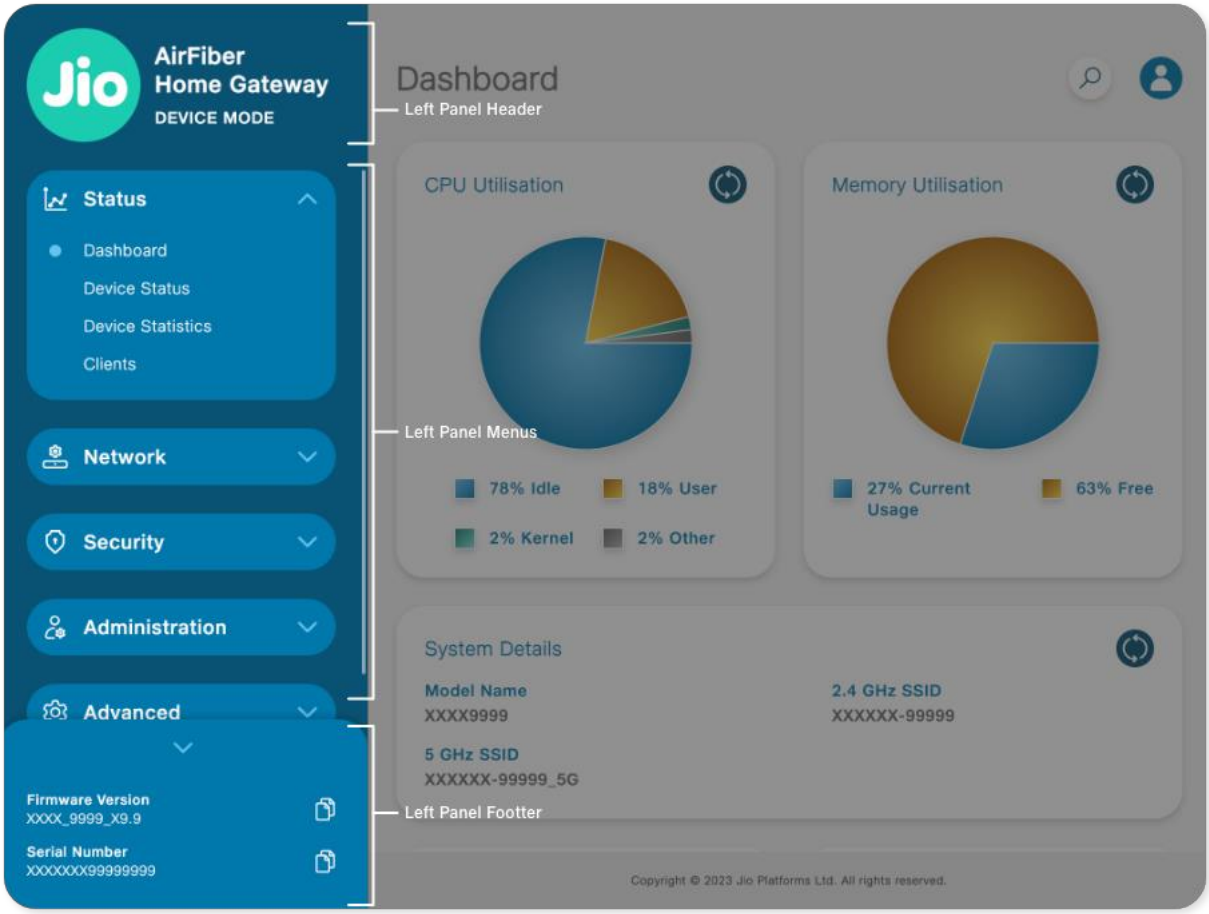
2.1 Left Panel

Left Panel contains a header, main menus, and hide / show footer. In header having the name of the device [Ex: “UBR” or “5G ODCPE” etc.,] along with the title “AirFiber Home Gateway”. Main menu section, each main link having specific second level links. Always only one main link can be opened, by default “Dashboard” page can be opened under “Status” main menu after login. Footer section contains “Firmware Version” and “Serial Number” details, these details can be copied by clicking icon right side of the details.

Please see below screen for reference.



Menu search can appear on top of main menus when left panel is in hamburger mode.

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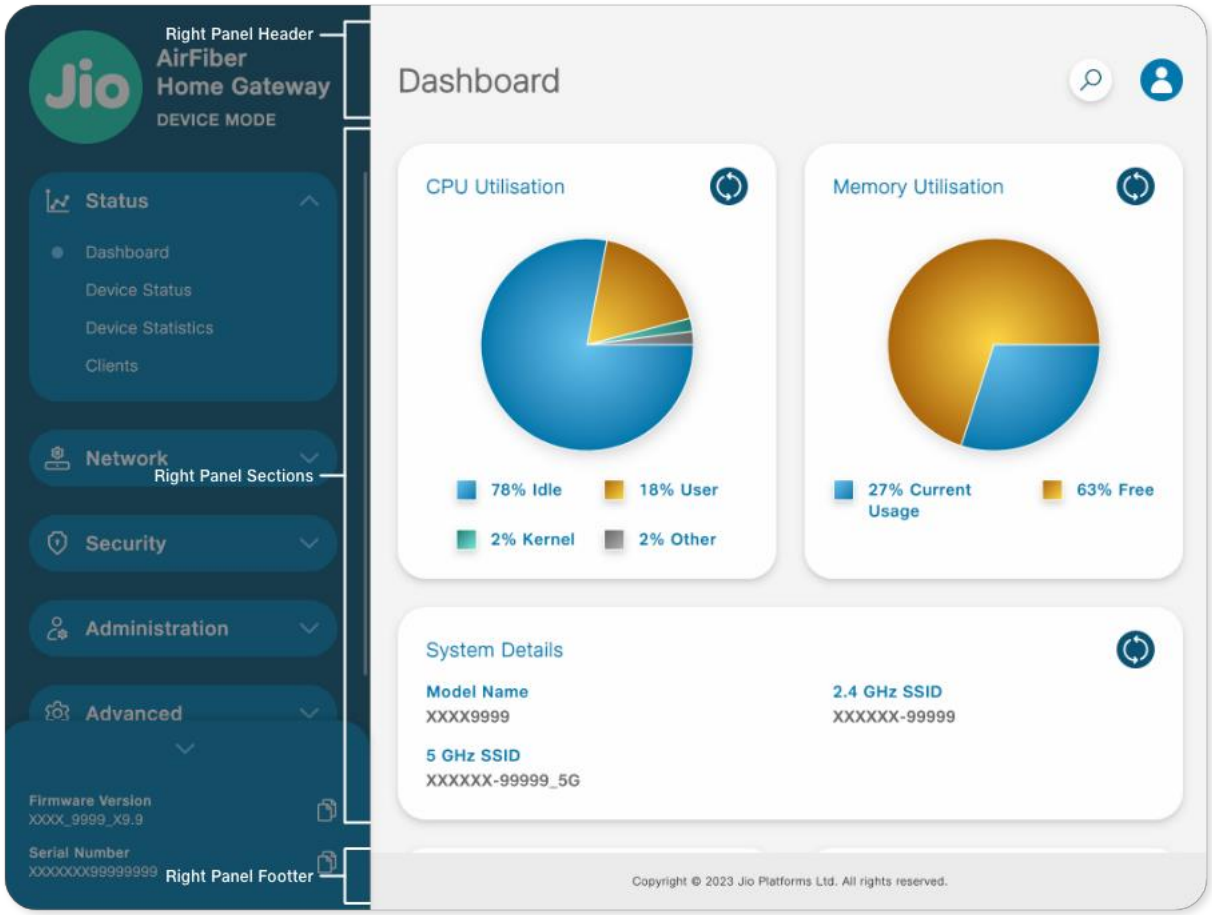
2.2 Right Panel

Right Panel contains header, details, and a footer. The header contains a page heading on the left and “Menu Search” and “User” icon on the right side. In details area contains sections, it is elaborated in the next chapter “About Sections” in below. And the footer contains copyright © statement.

Please see below screen for reference.



✍ Menu search list can show only after entering the minimum characters of two in the search box.

✍ Header and Footer are sticky to the top and bottom, details are only scrollable if required.

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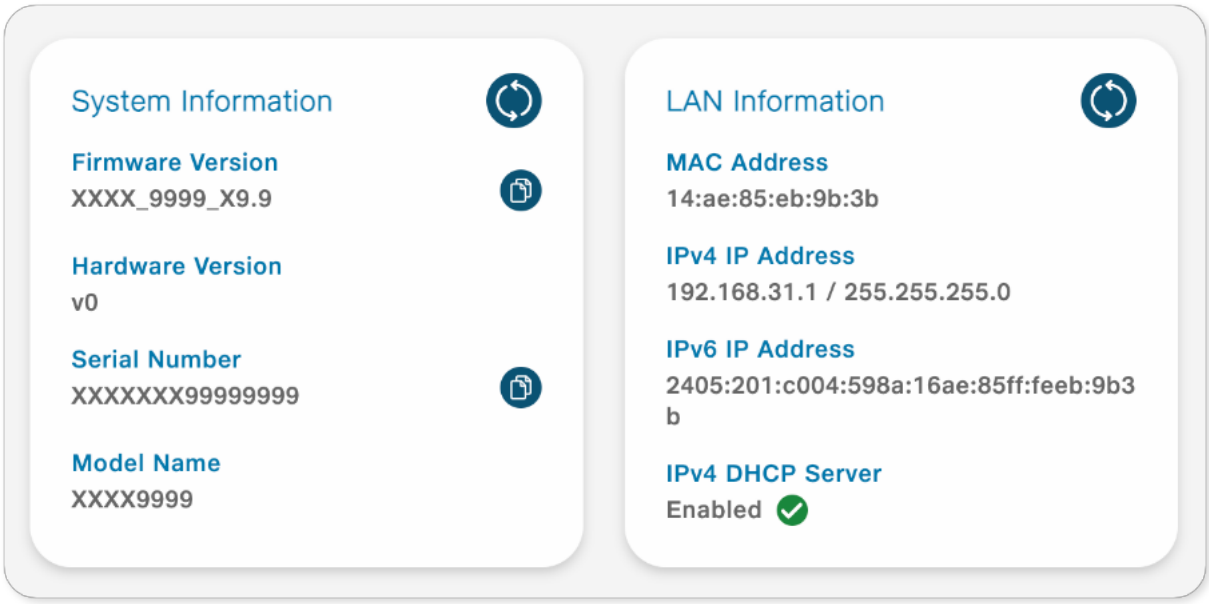
2.3 About Sections

Entire UI has only three types of sections, 1. Status Sections, 2. Configuration Sections, and 3. Table / Records Sections.

2.3.1 Status Sections

These sections has a heading, read-only data along with the refresh icon on top-right of the sections. User can refresh the data at any time by clicking this icon. Enable / Disable status fields have a graphical representation with icon [Ex: IPv4 DHCP Server]. For required status output can copy by clicking copy icon right-side of the field [Ex: Firmware Version]. These sections can be used mostly under "Status" main menu.

Please see below screen for reference.



2.3.2 Configuration Sections

These sections has heading, user configurable "Input Fields" [Ex: Text Fields, Drop-downs. etc.,] along with a submit button [Ex: Save, Upgrade, Restore, etc.,] at the bottom-right side. User can change the configurations and submit the changes by clicking the "SAVE" button. The user can reset the configurations before saving the changes if required by clicking the reset icon on top-right side of the section. Also section info icon is available on the bottom-left side, it will open the tooltip window by clicking it, and it contains quick help information relevant to the section. "**Note:**" or "**Info:**" or "**Warning:**" messages will appear after the info icon if required.

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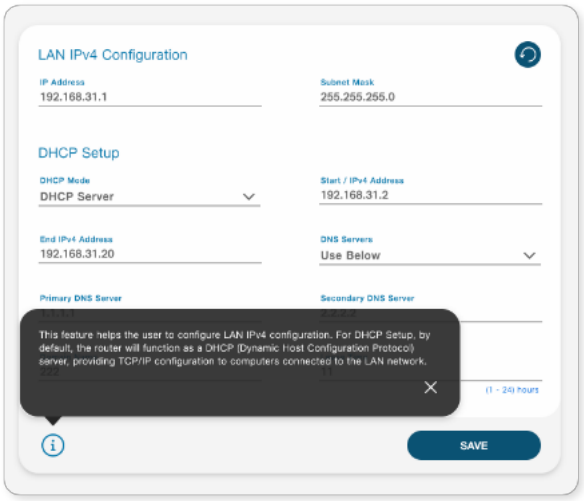
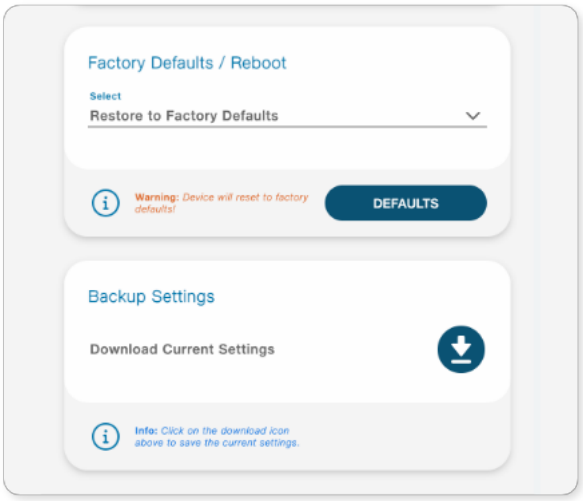
Please see below screens for reference.

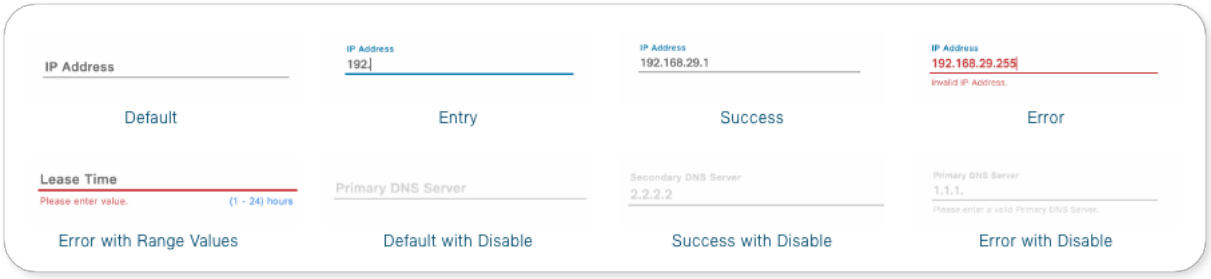

LAN IPv4 Configuration
IP Address
192.168.31.1
Subnet Mask
255.255.255.0
DHCP Setup
DHCP Mode
DHCP Server
Start / IPv4 Address
192.168.31.2
End IPv4 Address
192.168.31.20
DNS Servers
Use Below
Primary DNS Server
Secondary DNS Server
This feature helps the user to configure LAN IPv4 configuration. For DHCP Setup, by default, the router will function as a DHCP (Dynamic Host Configuration Protocol) server, providing TCP/IP configuration to computers connected to the LAN network.
SAVE


Factory Defaults / Reboot
Select
Restore to Factory Defaults
Warning: Device will reset to factory defaults!
DEFAULTS
Backup Settings
Download Current Settings
Info: Click on the download icon above to save the current settings.

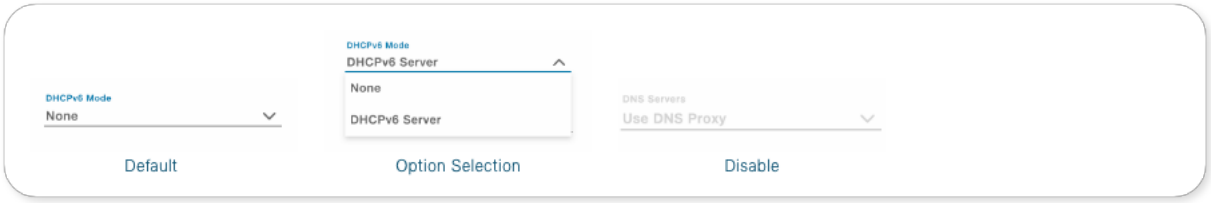
2.3.3 Input Fields

The configuration sections contain only four input types, 1. Text Input, 2. Select (Dropdown) Input, 3. Boolean (True / False) Input, and 4. Browse Upload (File) Input. Along with these inputs, read-only data (non-editable) fields also will show based on feature, [Ex: Read-only IPv6 address in “LAN IPv6 Configuration” section].

- Text Input and its states:



- Select (Dropdown) Input and its states:



- Boolean (True / False) Input and its states:

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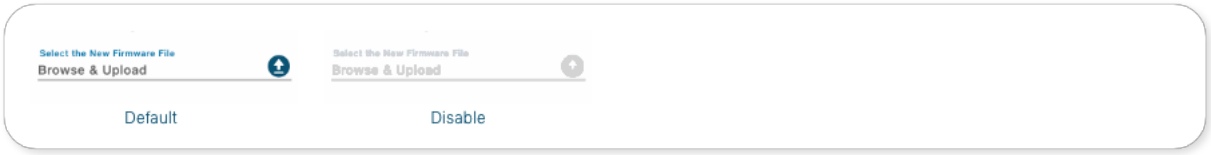
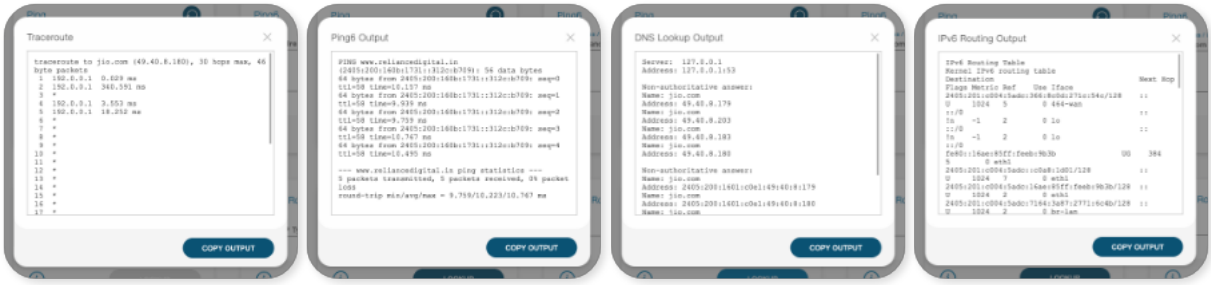
- Browse Upload (File) Input and its states:



2.3.4 Output Field

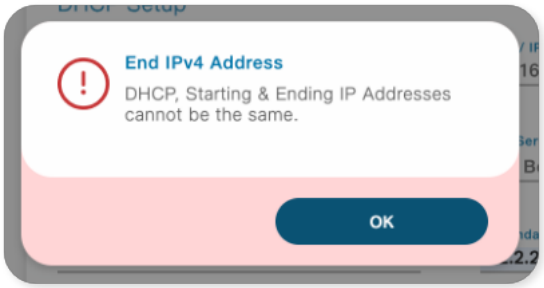
Along with the above input fields, there is one "Textarea" field (multi-line text) used for “Diagnostics” output result for "Ping", "Traceroute", "Ping6", "Traceroute6", "DNS Lookup", and "Routing Table". These can open the model window and present the outputs with “Copy Output” button, the user can copy the output by clicking on it if required.

Please see the below screens for reference.



A validation error alert can pop-up, as and when required for all configurations after hitting the save button.

Please see below screen for reference.

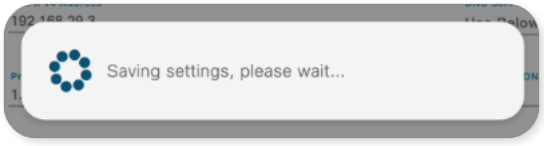


Validation Error Alert

✍ The user should clear all validation errors, before the saving / updating the configurations.

After successful submission of the desired changes, device will take a few seconds, while doing the change device will show appropriate message with spinner window.

Please see below screen for reference.



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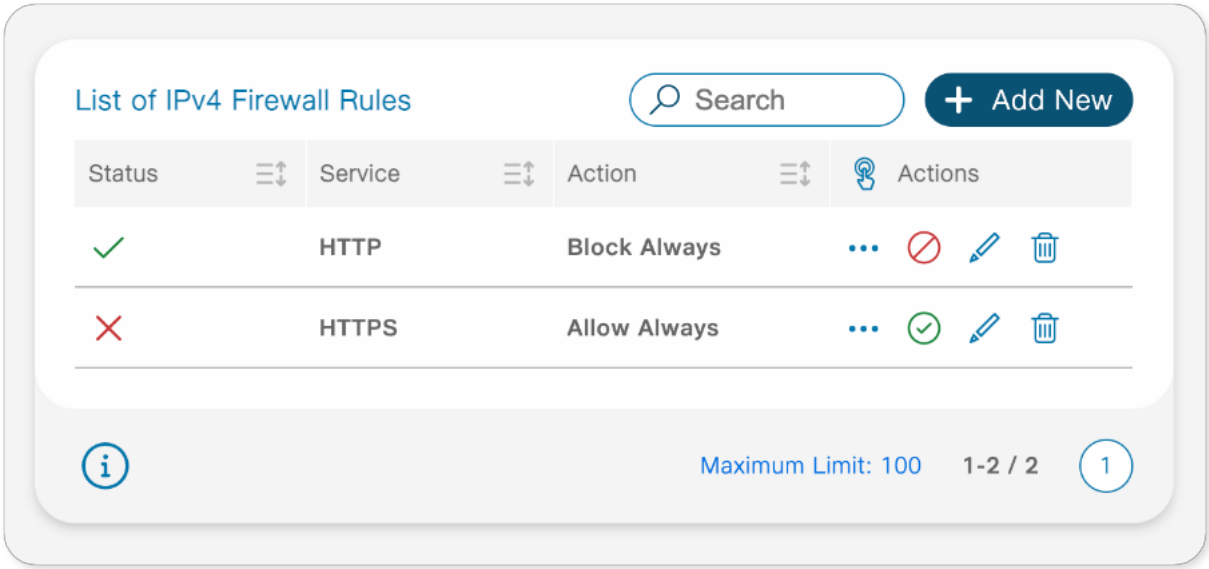
✍ Spinner window message will change appropriately according the action taken by the user.

2.3.5 Table / Records Sections

These sections have a heading, records search, and “Add New” button etc., on the header. Below the header table will appear with respective columns along with actions column at the end. Actions columns having icons such as More, Edit, Delete, etc., based on the feature, these icons will may one or more. Also section info icon is available on the bottom-left side, it will open the tooltip window by clicking it, and it contains quick help information relevant to the section. “**Note:**” or “**Info:**” or “**Warning:**” messages will appear after the info icon if required. Pagination and page number icons can show on bottom-right side of the section, maximum limit number can show before pagination, the limit can be varied depending of the feature.

Please see below screen for reference.



✍ Table / record “Search” list can show only after entering the minimum characters of two in the search box.

✍ In a table number of columns to show automatically adjust based on the media sizes [Ex: Laptop, Tablet, Mobile, etc.,]. To see all details please click on more icon in actions column.

User can add the new rule / record by clicking the “Add New” button on top-right side of the table. View more details of the record by clicking the “More” icon in “Actions” column. Edit the record by clicking the “Edit” icon in “Actions” column. “Add Button”, “More Icon”, “Edit Icon”, and “Change Password Icon” (if applicable) can open the model (pop-up) window with respective details or configuration. User can add or change the configurations and save it by clicking the “Save” button. Close the model (pop-up) window any time by clicking the close icon on the top-right side.

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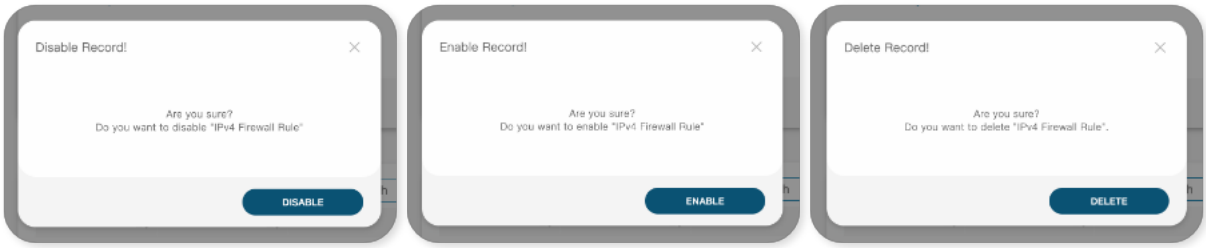
Please see below screens for reference.

Add New Model Window | More Details Model Window | Edit Model Window

Model window can re-size automatically based on the available fields or media sizes. [Ex: Mobile, Tablet, Laptop, and TV etc.,]

User can delete, enable / disable the records by using the respective icons in “Actions” column, these actions confirm dialog will open for confirmation. By clicking the action (Delete / Enable / Disable) button desired action will complete. The user can cancel the action by clicking the close icon at the top-right side of the dialog.

Please see below screens for reference.



Disable Confirmation Window | Enable Confirmation Window | Delete Confirmation Window

2.3.6 UI & UX Icons

UI & UX icons are having two types, 1. Action Icons, and 2. Status or Representation Icons. All action icons contain actions, by clicking this icon take respective action. All status icons are only representations [Ex: Enable, Disable, etc.,] of corresponding text or data. About icons and descriptions are explained below:

2.3.7 Action Icons

	Add: To add or create new rule or record.
	Change Password: To change the password.
	Close: To close the model window (pop-up) or help tooltip windows.
	Copy: To copy data.

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	Delete: To delete the record or rule.
	Disable: To disable the record or rule.
	Download: To download.
	Edit: To edit the record or rule.
	Enable: To enable the record or rule.
	Hide: To hide the password characters.
	Info, Help: To show a tooltip window with info help.
	Logout: To logout from the device.
	More: To show the more details of the record or rule.
	More List: To show the more list of actions.
	Refresh: To refresh the section's or table's data.
	Reset: To reset the configurations.
	Search: To search menu or table records or rules.
	Show: To show the password characters.
	Sort: To sort the table list by column.
	Sort Ascending: To sort the table list in ascending order.
	Sort Descending: To sort the table list in descending order.
	Upload: To upload the file.
	User: To show the user privileges.

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2.3.8 Status or Representation Icons

	Actions: Table actions representation.
	Disabled: Show the record status “DISABLED”.
	Enabled: Show the record status “ENABLED”.
	Error: Representing the error message.
	Info: Representing the information (info) message.
	Language: Representing the UI & UX language (i18n) or localisation.
	No Status: To show the graphical status of “NO” [Ex: DHCP, TR-69, etc., Status].
	Success: Representing the success message.
	Theme: Representing the UI & UX color themes.
	Yes Status: To show the graphical status of “YES” [Ex: DHCP, TR-69, etc., Status].
	Warning: Representing the warning message.

All icons can be disabled (grey) mode or some other color if required as needed.

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3. ABOUT THE FEATURES

This chapter mainly explains about the feature functionality, it is same as inline help that is available after clicking the info icon available in the bottom-left side of each section.

The device features mainly splits into five main menus, such as “Status”, “Network”, “Security”, “Administration”, and “Advanced”. Each main menu having specific second lever menus. User can navigate the features pages by clicking the second level menus. Each page contains the section(s) and the section represents the device feature [Ex: CPU Utilisation, LAN IPv4 Configuration, Firewall, User Management, etc.,].

Menu structure is presented below:

- Login
  - Factory Default State Login
  - Update Passwords
  - Login
- Status
  - Dashboard
  - Device Status
  - Device Statistics
  - Clients
- Network
  - LAN IPv4
  - LAN IPv6
  - Wireless
  - Routing
- Security
  - Firewall
  - Attack Checks
- Administration
  - User Management
  - Maintenance
  - Diagnostics
  - Date & Time
- Advanced
  - Schedules

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3.1 Login

3.1.1 Factory Default State Login

First Time Login: New device of “Jio AirFiber Home Gateway” will come with default credentials. The device in the factory default state, users can login with default credential provided above.

✍ Default Credentials: Username “**admin**” and Password “**Jiocentrum**”

3.1.2 Update Passwords

Update Passwords: The user must update the passwords for admin and guest when the device in the factory default state.

Update Passwords
You must update your passwords because you have logged in for the first time.
Admin Password
Confirm Admin Password
Guest Password
Confirm Guest Password
Note: Please choose a complex password (Length 8-32 characters. Must include one of each small, capital, numeric & special characters) for better security.
UPDATE

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3.1.3 Login

Login after Updated Passwords: User can login as an admin or guest with new passwords. Admin can make any required changes, update the configuration, and update the device with new firmware etc., as needed. Gust can only access the device and view the configuration only, can't change any configurations.

✍ Device has only one admin account with username as "admin" and one guest account with username as "guest".

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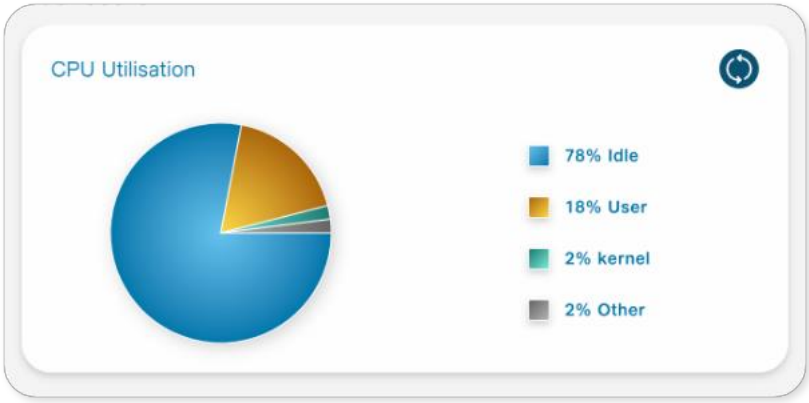
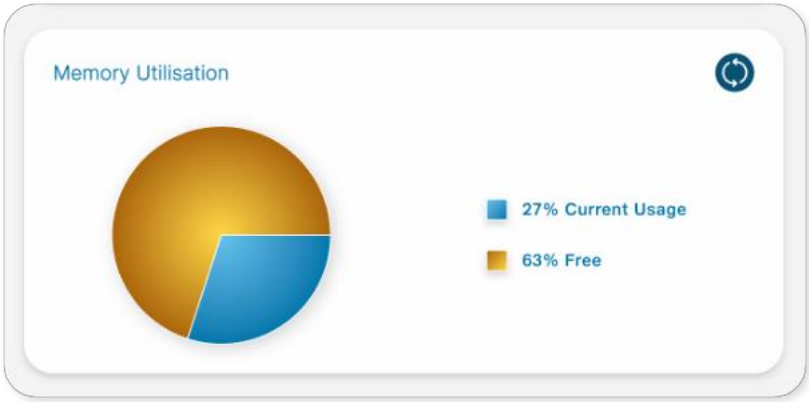
3.2 Status

3.2.1 Dashboard

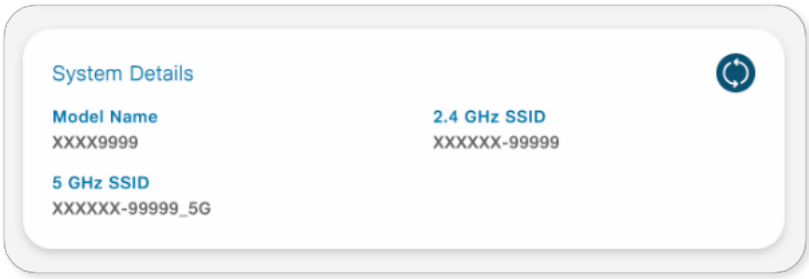
CPU Utilisation: Graphical representation of the “CPU Utilisation” for “Idle”, “User”, “Kernel”, and “Other”.



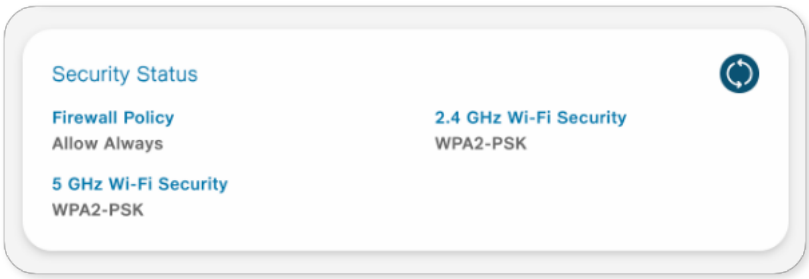
Memory Utilisation: Graphical representation of “Memory Utilisation” for “Current Usage”, and “Free” memory.



System Details: Device name and SSID details.



Security Details: Firewall, 2.4 GHz, and 5 GHz security details.



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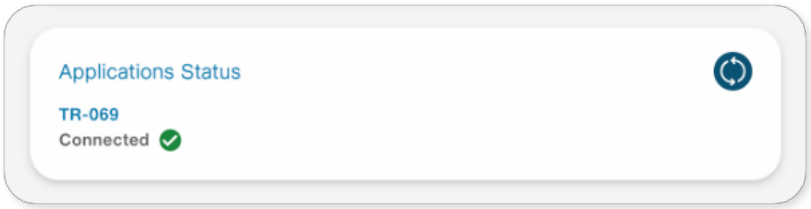
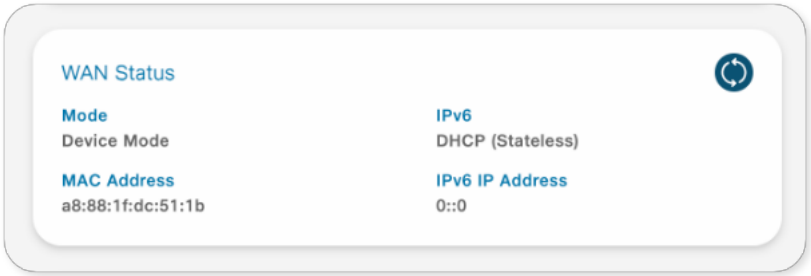
Applications Status: Connected application(s) status.



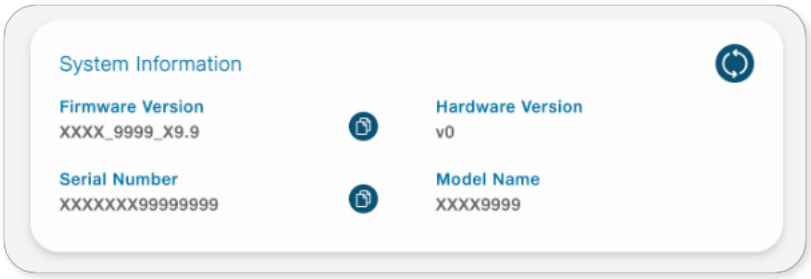
WAN Status: WAN mode, MAC, and IP details.



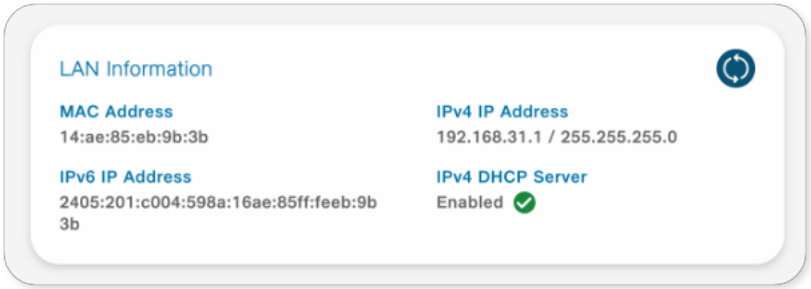
LAN Status: LAN mode, MAC, and IP details.

3.2.2 Device Status

System Information: Firmware & Hardware versions, Serial Number and Model Name details.



LAN Information: LAN details along with DHCP server status.



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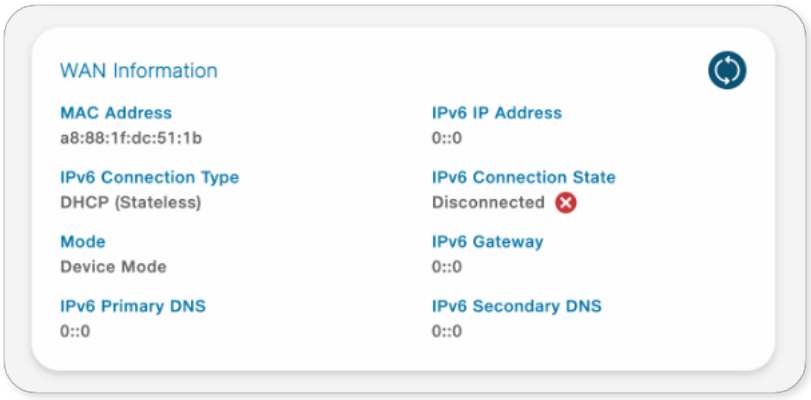
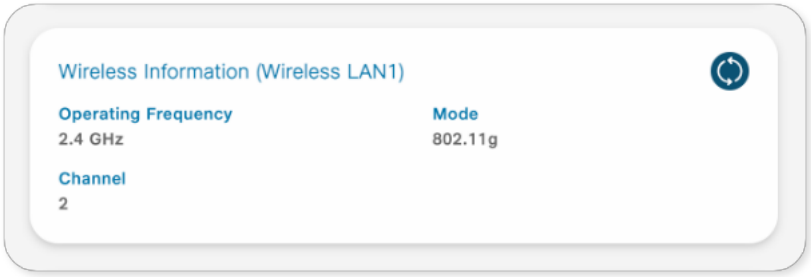
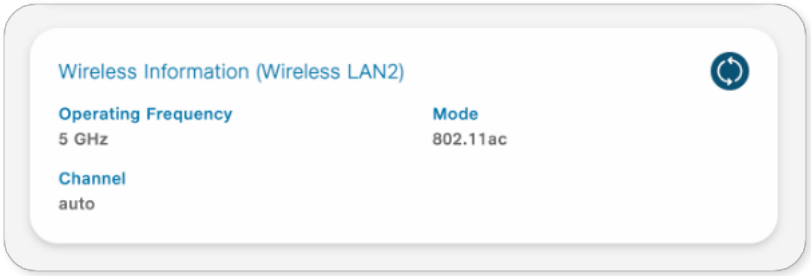
WAN Information: WAN details along with “Connection Type”, “Connection Status”, and “Device Mode”.



Wireless Information (Wireless LAN1): WLAN 2.4 GHz details.

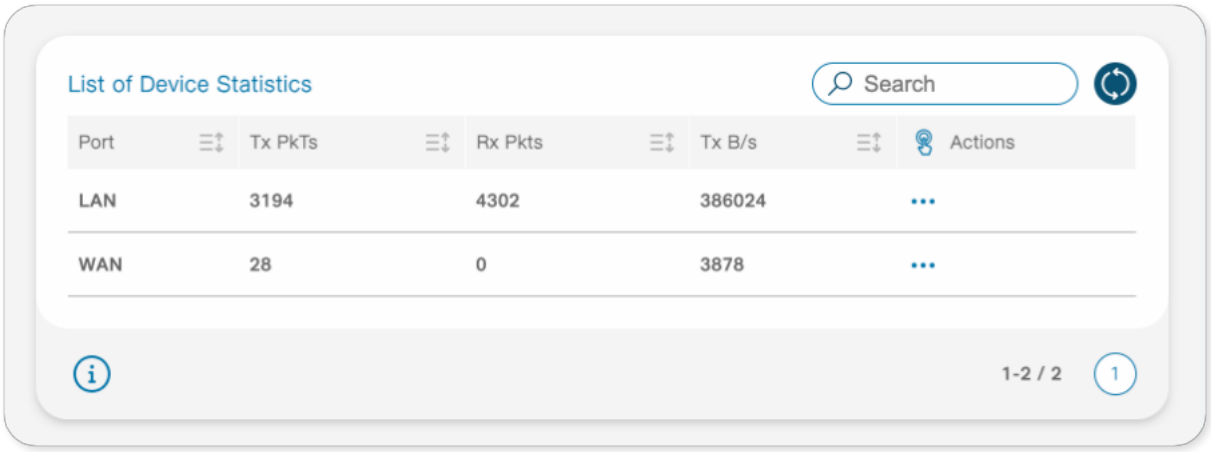


Wireless Information (Wireless LAN2): WLAN 5 GHz details.



3.2.3 Device Statistics

List of Device Statistics: It displays system interfaces packet and byte count of receive (Rx) & transmit (Tx) details along with multicast, and uptime data.



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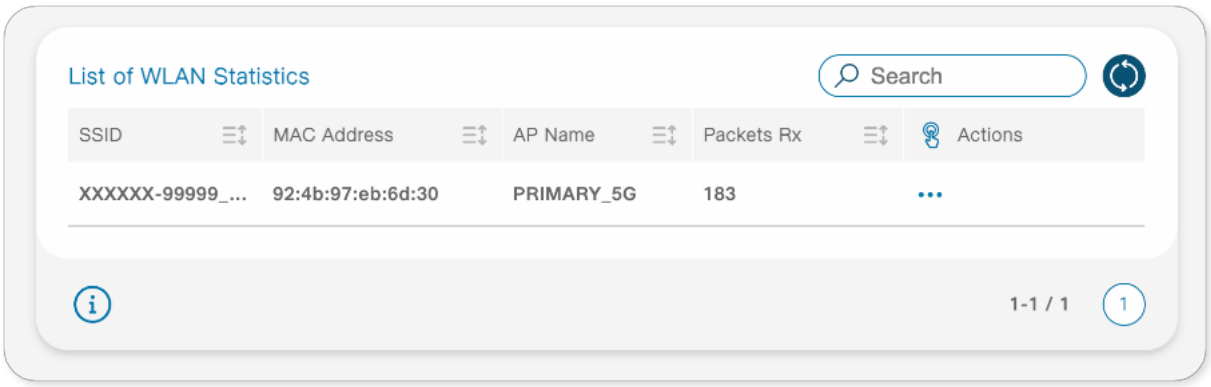
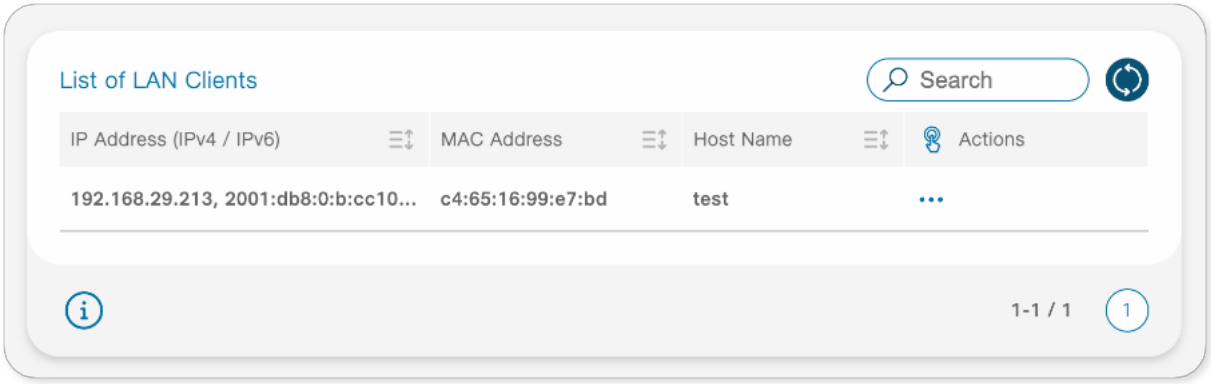
List of WLAN Statistics: Wireless traffic statistics for all the configured access points are displayed in this table. The receive (Rx) and transmit (Tx) data is shown for the configured AP.

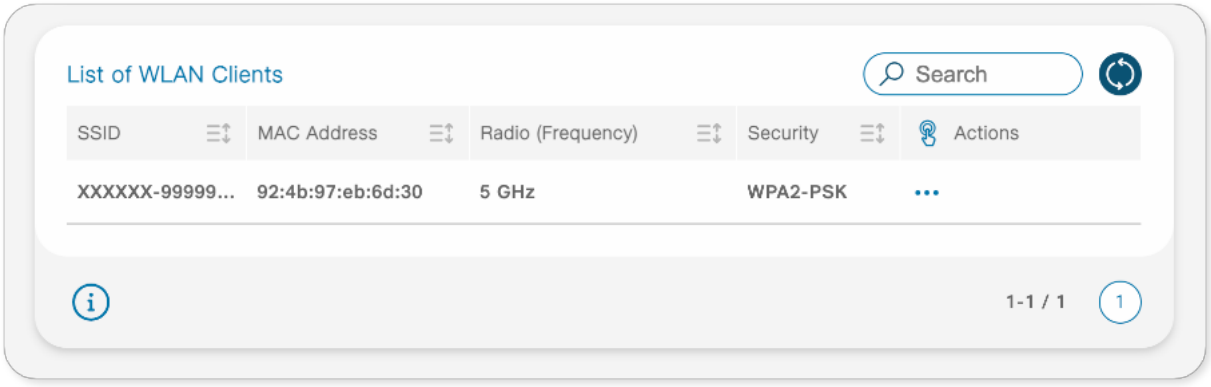


3.2.4 Clients

List of LAN Clients: It displays the list of DHCPv4 / DHCPv6 clients connected to the LAN DHCPv4 / DHCPv6 server and to whom DHCPv4 / DHCPv6 server has given leases.



List of WLAN Clients: It displays the wireless clients (or stations) currently connected to the AP (Access Points) configured and enabled on this device.



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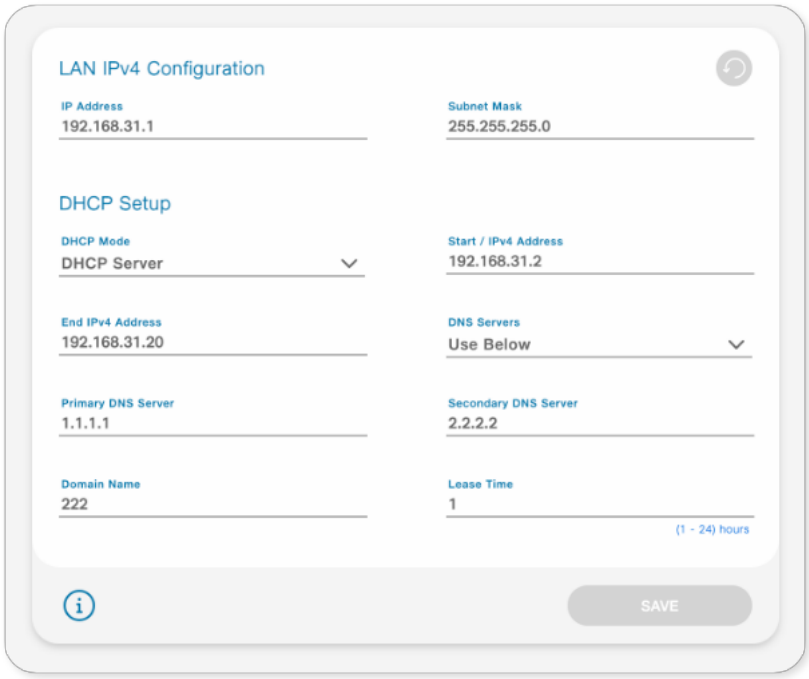
3.3 Network

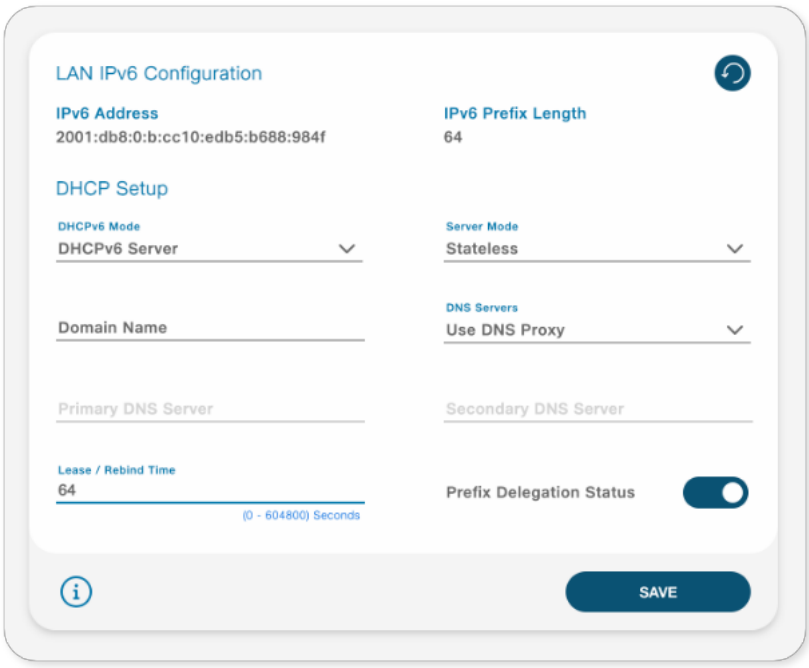
3.3.1 LAN IPv4

LAN IPv4 Configuration: The user can configure LAN IPv4 DHCP (Dynamic Host Configuration Protocol) setup. By default, the device will function as a DHCP server, providing TCP / IP configuration for computers connected to the LAN network.



3.3.2 LAN IPv6

LAN IPv6 Configuration: The user can configure LAN IPv6 configuration DHCP (Dynamic Host Configuration Protocol) setup. By default, the device will function as a DHCP server, providing TCP / IP configuration for computers connected to the LAN network.



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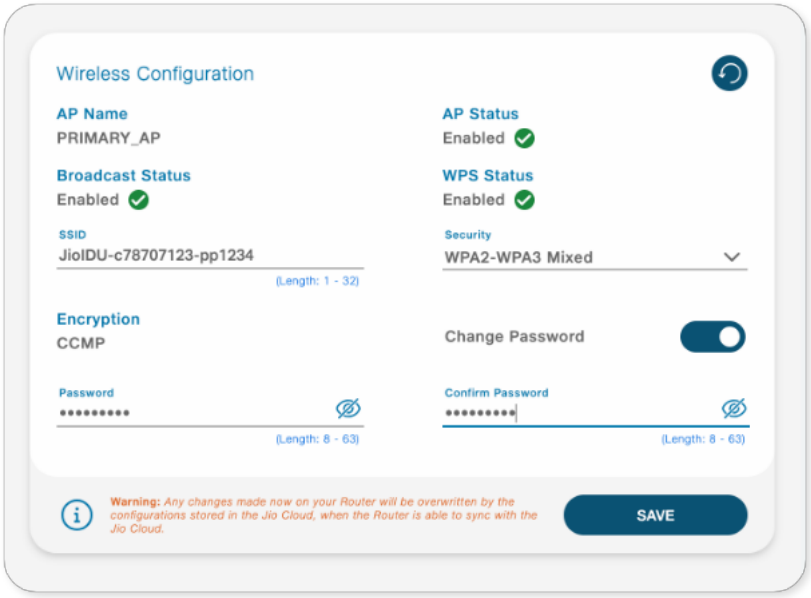
3.3.3 Wireless

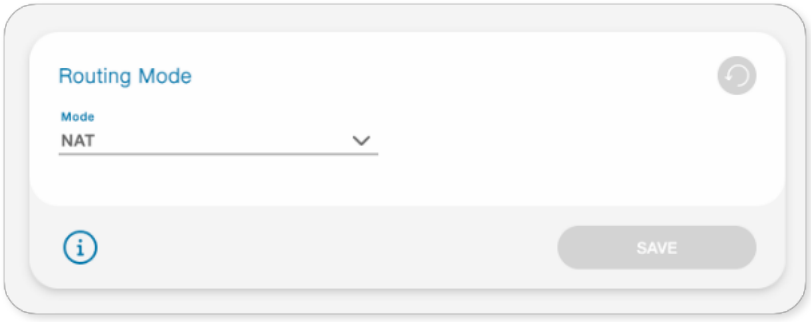
Wireless Configuration: The wireless configuration page allows the user to edit / change the SSID and Security Type. Also, user can change the SSID password by enabling the change password option.



When Jio AirFiber router is unable to sync with the Jio Cloud! Any changes made now on your Router will be overwritten by the configurations stored in the Jio Cloud, when the Router is able to sync with the Jio Cloud.

3.3.4 Routing

Routing Mode: This device supports “NAT” (Network Address Translation) & “Classical Routing”. NAT is a way to map multiple local private addresses to a public one before transferring the information. With classical routing, devices on the LAN can be directly accessed from the internet by their public IP addresses, with appropriate firewall settings.



Device mode (Routing Mode) change requires a reboot.

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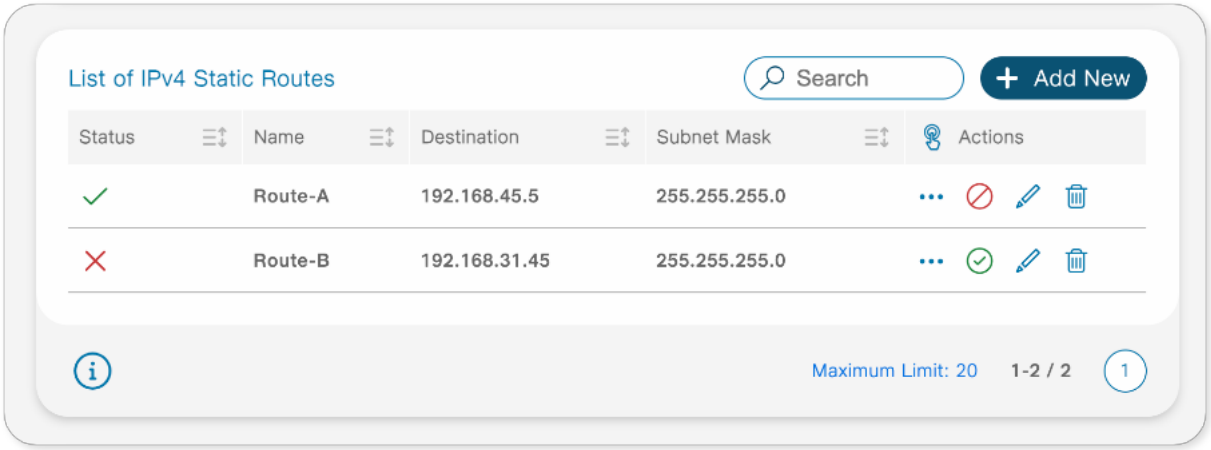
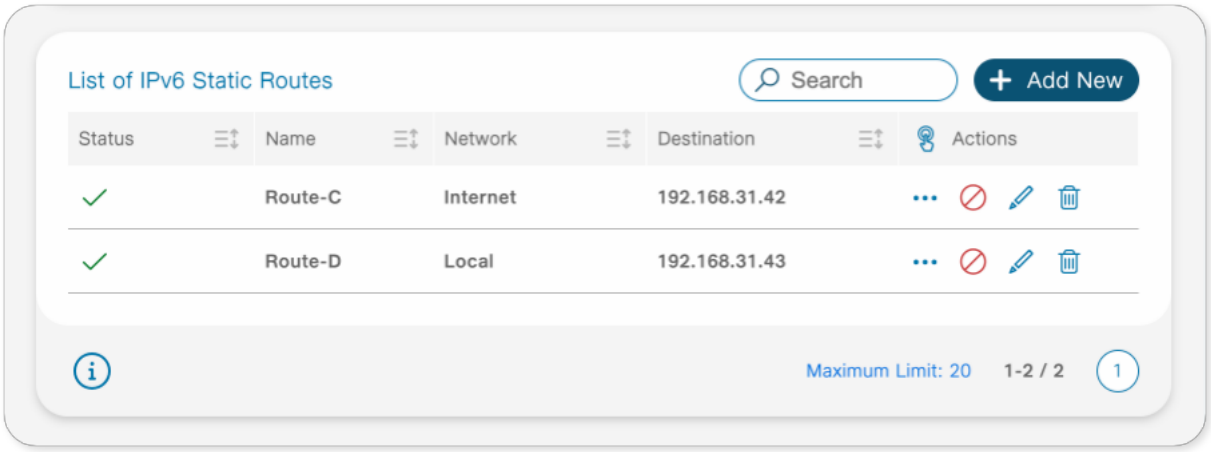
List of IPv4 Static Routes: IPv4 Static Routes display all routes that have been added manually by the user. Route can enable / disable while adding it, by selecting a status option or by clicking the enable / disable icon can change the status after adding.



List of IPv6 Static Routes: IPv6 Static Routes display all routes that have been added manually by the user. Route can enable / disable while adding it, by selecting a status option or by clicking the enable / disable icon can change the status after adding.



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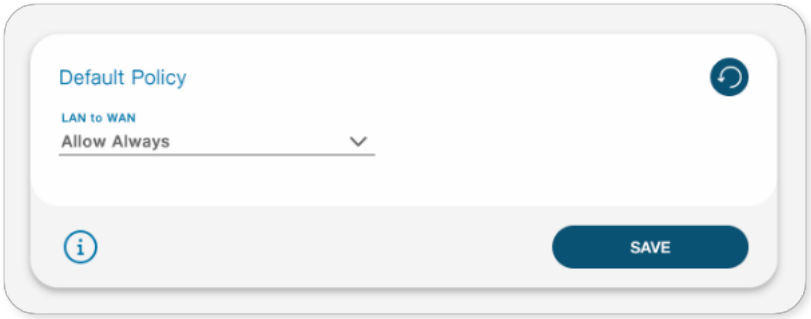
3.4 Security

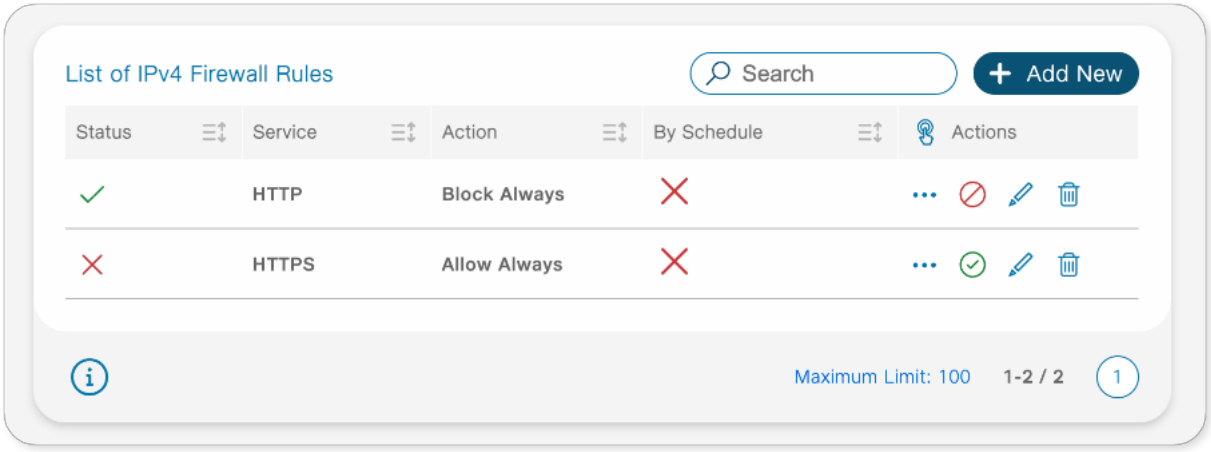
3.4.1 Firewall

Default Policy: “Allow Always” permits any outbound traffic from LAN hosts to pass through the firewall and reach the WAN. “Block Always” in order to closely manage the outbound traffic, use this policy.



By default, “LAN to WAN” policy is allowing always, users can block, if required.

List of IPv4 Firewall Rules: Outbound LAN to WAN rules restrict access to traffic leaving your network, selectively allowing only specific local users to access specific outside resources. The default outbound rule is to allow access from the secure LAN to insecure WAN.



List of IPv6 Firewall Rules: Inbound WAN rules restrict access to traffic entering your network, selectively allowing only specific outside users to access specific local resources. By default, all access from the insecure WAN side are blocked from accessing the secure LAN, except in response to requests from the LAN. To allow

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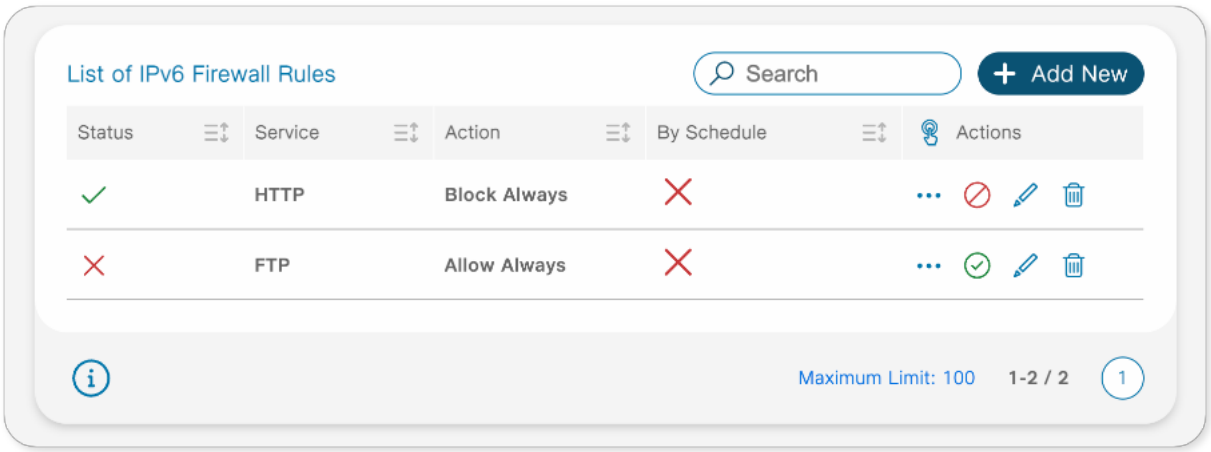
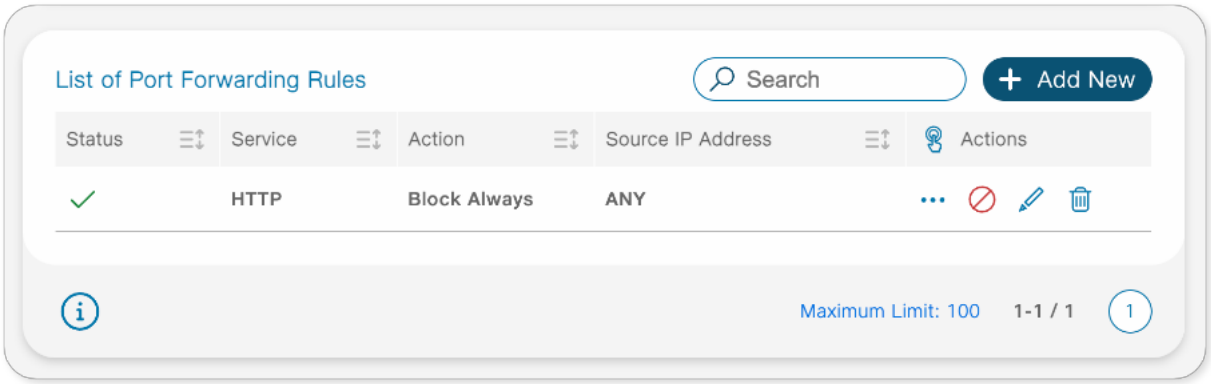
outside devices to access services on the secure LAN. The user must create an inbound firewall rule for each service.

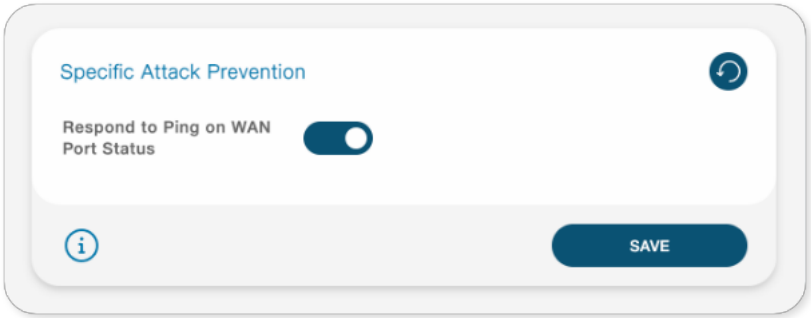


List of Port Forwarding Rules: Port forwarding rule allows remote SSL users to access specified network applications. Traffic from the remote user to the device is detected and re-routed based on configured port forwarding rules. Internal host servers or TCP applications must be specified as being made accessible to remote users.



3.4.2 Attack Checks

Specific Attack Prevention: Attacks can cause malicious security breaches or unintentional network issues that render the device unusable. Attack checks allow you to manage WAN security threats such as continual ping requests and discovery via ARP (Address Resolution Protocol) scans.



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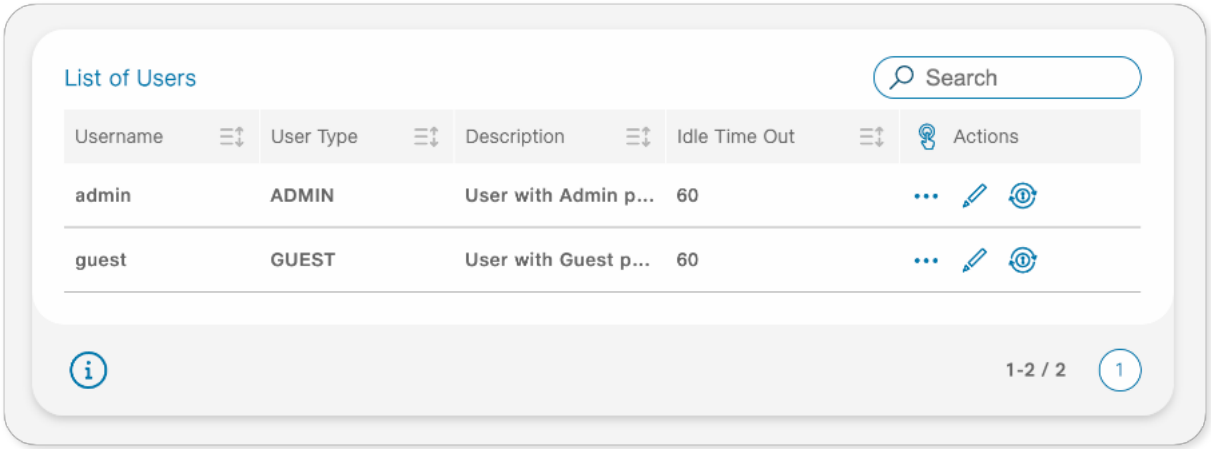
3.5 Administration

3.5.1 User Management

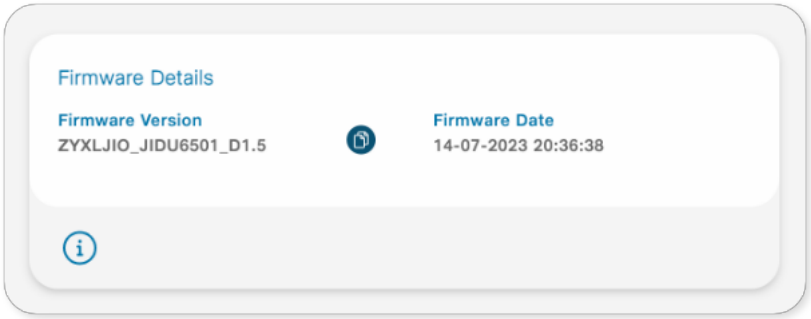
List of Users: There are only two types of user “ADMIN” & “GUEST”. Admin can able to change or update any configurations of the device. The guest have read only permissions, can see all the configurations.



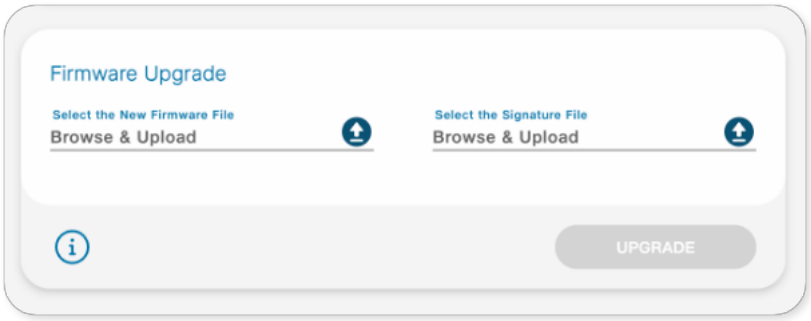
Device has only one admin and one guest user, user can’t add any new user, only can manage these two users.

3.5.2 Maintenance

Firmware Details: The device current FW (firmware) version & date details will present here. It will help to verify that the device is using latest FW or not.



Firmware Upgrade: User can upgrade the latest FW (firmware) by uploading new FW and signature file.



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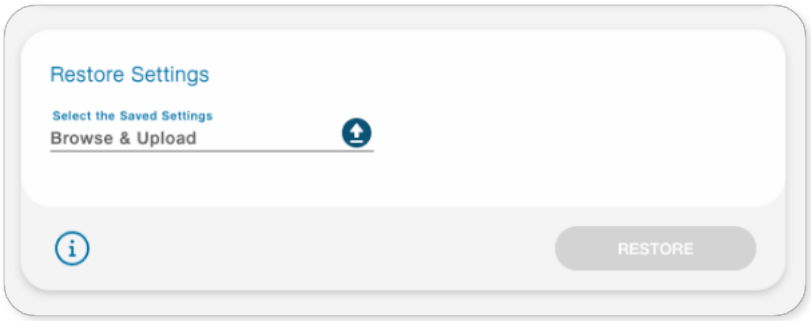
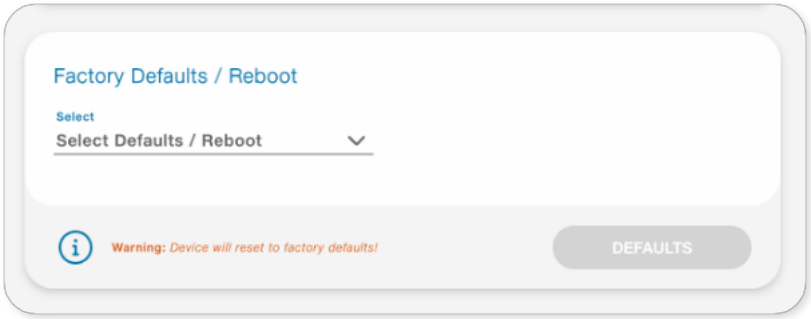
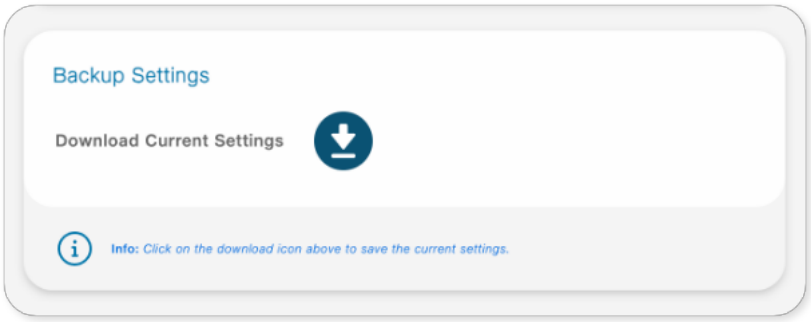
Restore Settings: User can restore the device, from the saved settings file.



Factory Defaults / Reboot: User can change device settings to factory defaults or reboot the device if required.



Backup Settings: User can back-up the current device setting and save it for feature use to restore the these setting.



3.5.3 Diagnostics

Ping / Traceroute: Ping to send an ICMP echo request packet to the destination using IPv4 network. Ping can be used to test connectivity between this device (router) and another device on the network connected to

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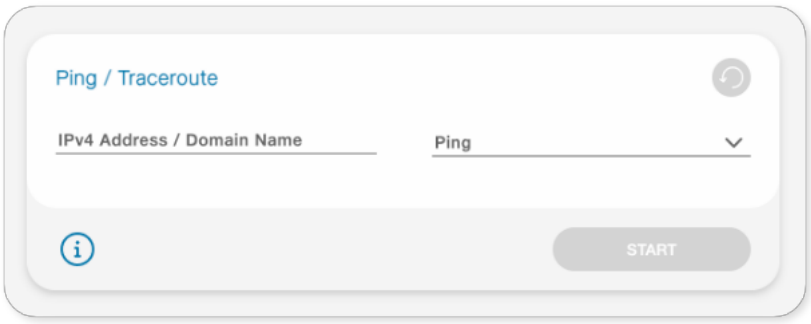
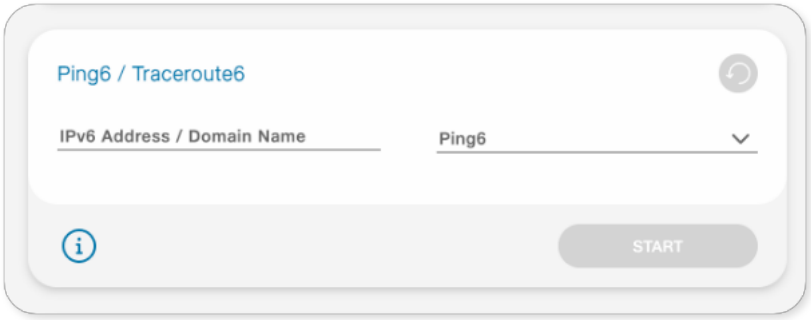
this device. The traceroute (IPv4) to display all the devices present between the destination IP address and this device and the destination will be displayed.



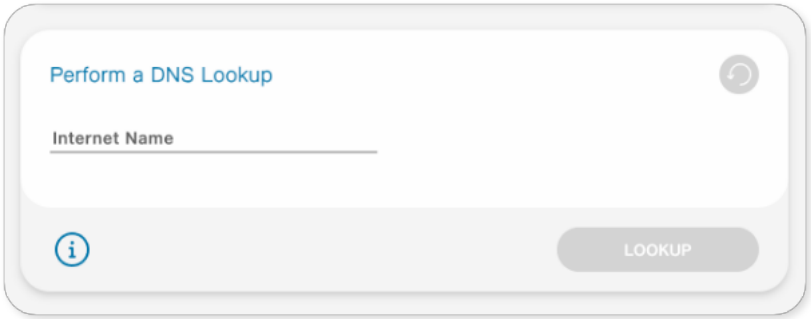
> “Ping” can perform 5 pings and “Traceroute” can perform up to 30 "hops" (intermediate routers) max.

Ping6 / Traceroute6: Ping to send an ICMP echo request packet to the destination using IPv6 network. Ping can be used to test connectivity between this device (router) and another device on the network connected to this device. The traceroute6 (IPv6) to display all the devices present between the destination IP address and this device and the destination will be displayed.



> “Ping6” can perform 5 pings and “Traceroute6” can perform up to 30 "hops" (intermediate routers) max.

Perform a DNS Lookup: User can use DNS lookup to retrieve the IP address of a Web, FTP, email, or any other server on the internet.



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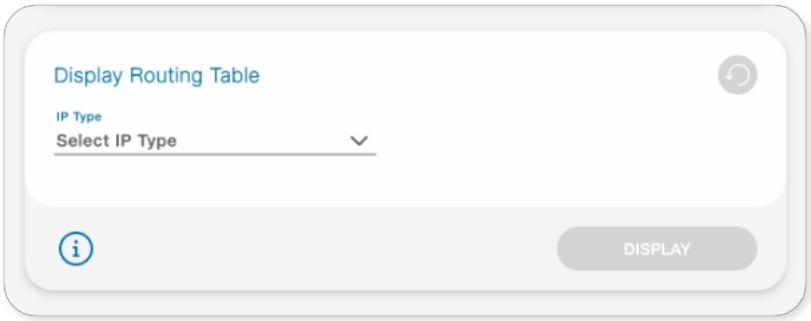
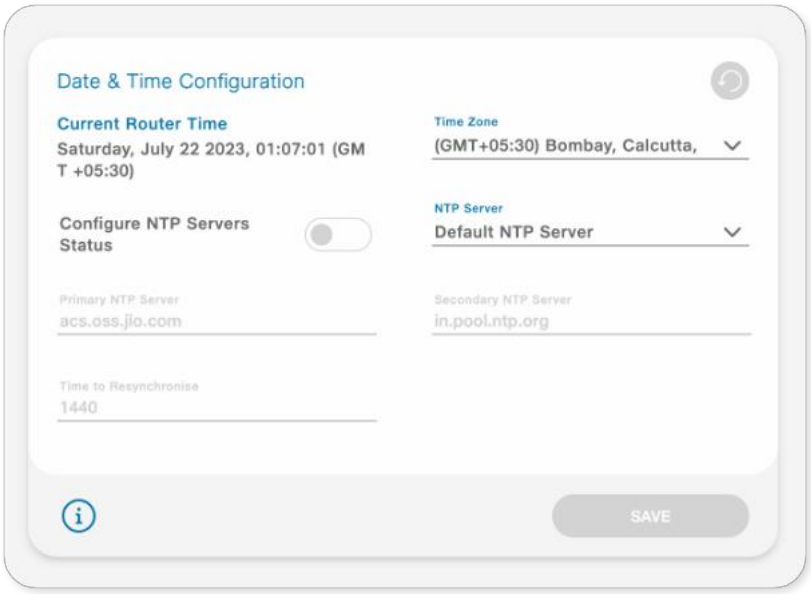
Display Routing Table: User can see the device's static and dynamic routes for IPv4 / IPv6 routing table.



3.5.4 Date & Time

Date & Time Configuration: User can configure time zone, whether or not to adjust for "Daylight Savings Time", and with which NTP (Network Time Protocol) server to synchronise the date and time. To set date & time manually, which will store the information on the device's RTC (Real Time Clock). If the device has access to the internet, the most accurate mechanism to set the device time is to enable NTP server communication.



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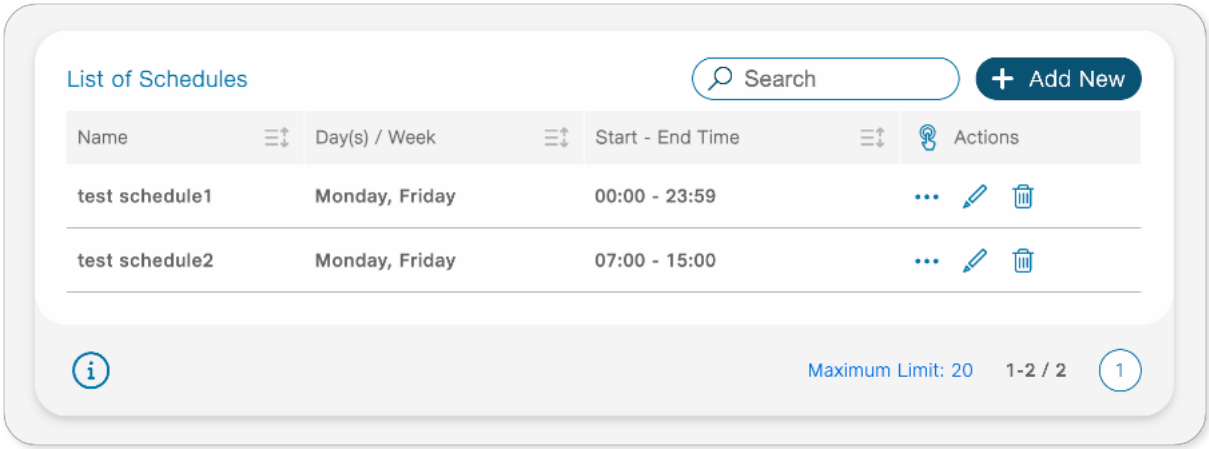
3.6 Advanced

3.6.1 Schedules

List of Schedules: User can create schedule (time-bound) rules, and these schedules can be used in “Firewall Rules” while creating it.



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